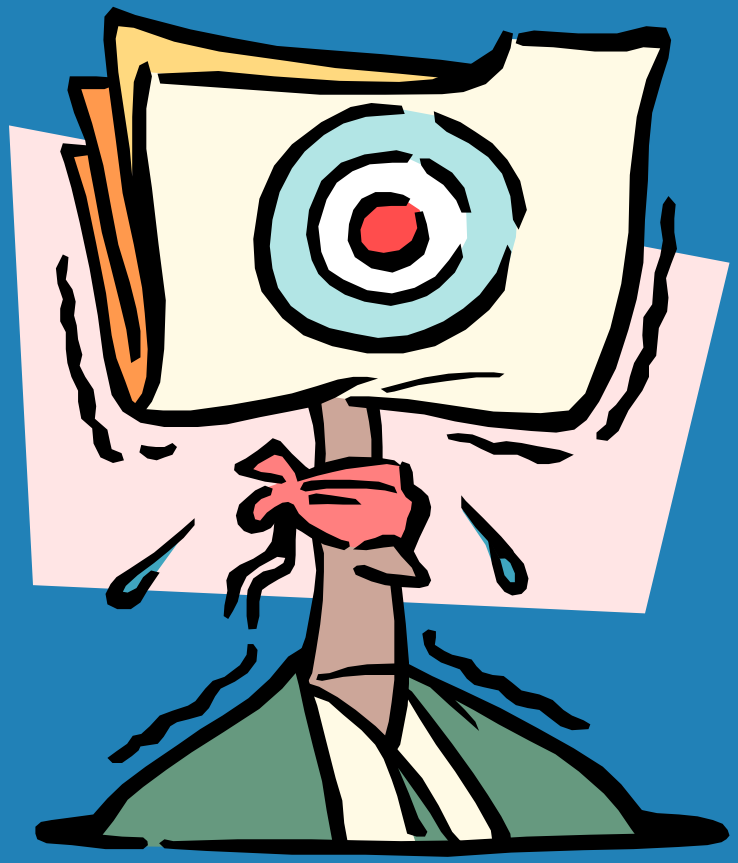
# Activity Based Costing

# HOW DO WE DETERMINE MANUFACTURING COST?

- GUESS
- USE SAME OR LESS PRICE AS A COMPETITOR'S - COST IMPLIED
- TRADITIONAL COST ACCOUNTING
- ACTIVITY BASED COSTING

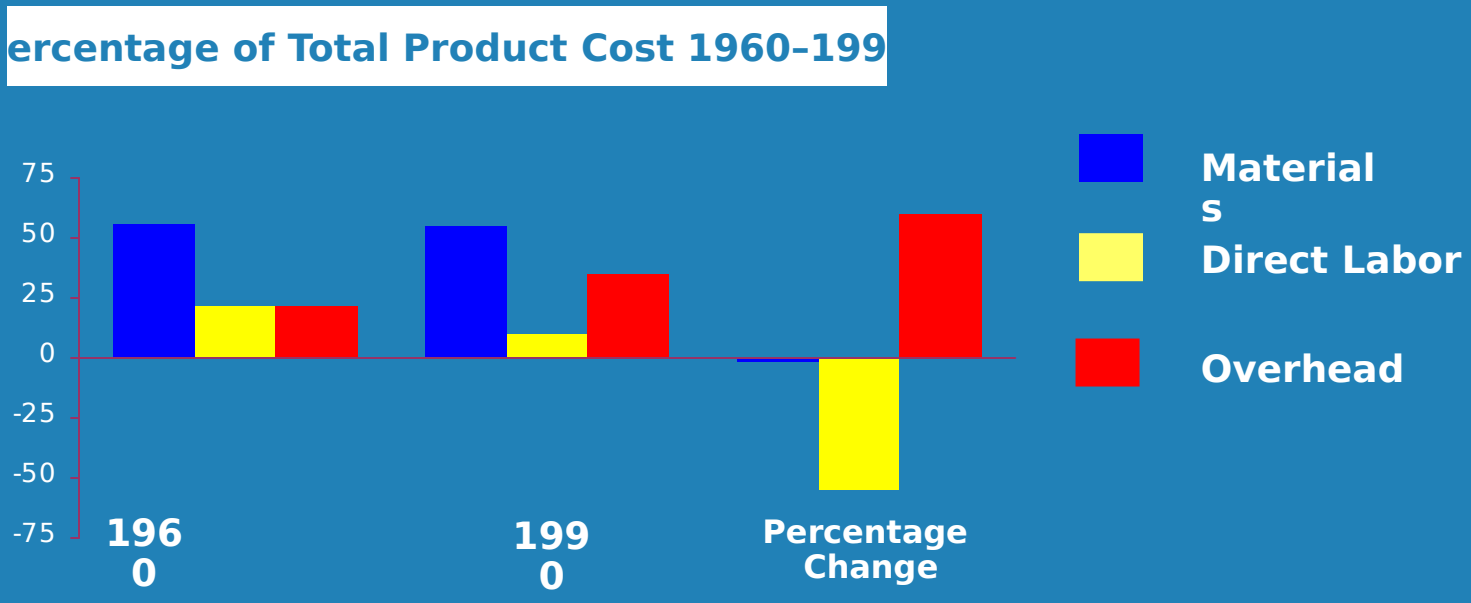


W S
CHANGED ?

WHAT IS THE
PROBLEM ?

# Traditional Cost Systems Evolved in an Era Significantly Different From Today's Business Environment

- Direct labor as a percentage of total cost has dropped by half
- Greater diversification in product lines and customer segments.
- Data collection and processing costs have plummeted
- Decreasing correlation between direct labor usage and overhead consumption




**Source:** National Association of Accountants.

# TRADITIONAL COST ACCOUNTING

ASSIGNS OVERHEAD BASED ON THE NUMBER OF UNITS PRODUCED, OR THE NUMBER OF MACHINING HOURS, OR LABOR HOURS USED TO PRODUCE AN ITEM. ASSUMES THERE IS A RELATIONSHIP BETWEEN OVERHEAD AND VOLUME

- AEWORKS JUSTLY
- FUNCTIONALLY-ORIENTED

*TCA WORKS BEST FOR SIMPLE PRODUCTS, WITH SIMILAR VOLUMES WITH SIMILAR DIRECT LABOR CONTEN*

# ACTIVITY BASED COSTING

A METHOD OF ASSIGNING COSTS TO PRODUCTS, BASED ON ASSIGNING THE COSTS OF RESOURCES USED BY THE ACTIVITIES REQUIRED TO MAKE THE PRODUCT – REGARDLESS OF WHERE

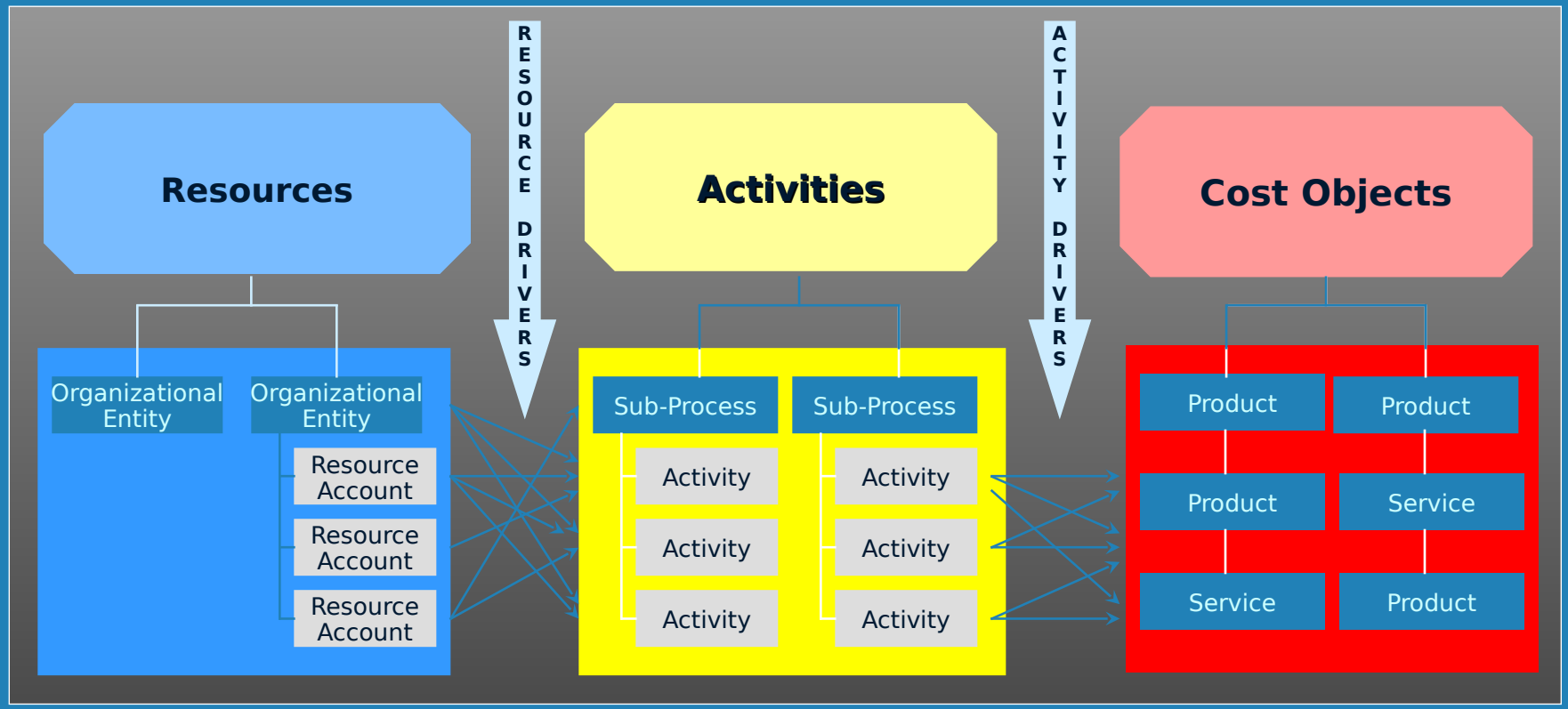
# ABC PRINCIPLES

- COST OBJECTS (PRODUCTS) CREATE ACTIVITIES
- ACTIVITIES CONSUME RESOURCES
- RESOURCE USE DRIVES COST

*ABC should be considered when there ar*
*erse products, of varying production lev*
*using different amounts of direct labor.*

# Based on This Concept—"Resources," "Activities," and "Cost Objects" Comprise the Three Components Generally Found Within ABC

# A Complete ABC Model Should Have Resource Costs Assigned to Activities and the Cost of Each Activity Then Assigned to End Products/Services Based on Drivers Which Measure Consumption.



# PER UNIT COSTING: TCA vs ABC

| DIRECT COSTS | COST/hr | A | B |
|---|---|---|---|
| Set-up | $ 10 | 2 hr/ea | 4 hr/ea |
| Machining | $ 40 | 2 hr/ea | 4 hr/ea |
| Engineering | $100 | 2 hr/ea | 3 hr/ea |
| | | Total DC $300 | Total DC $500 |
| OVERHEAD | | | |
| Receiving & | $ 20 | 4 hr/ea | 1 hr/ea |
| QA | $ 50 | 4 hr/ea | 1 hr/ea |
| Packing & QA | | <Total OH $350> | |
| | DC | $300 | $500 |
| **TCA** | OH | $118 | $232 |
| (based on machine hrs) | | **$418** | **$732** |
| | DC | $300 | $500 |
| **ABC** | OH | $ 80 | $ 20 |
| | | $200 | $ 50 |
| | | $**580** | $**570** |

# An Actual Case Example of How ABC Often Results in Significant Differences in Product or Service Costs, Which Can Impact Strategic Decisions

| Schrader-Bellows Company | | Unit Cost | | | |
|---|---|---|---|---|---|
| Valves | Quantity | Conventional | ABC | Percentage Difference | |
| A | 43,562 | $ 5.43 | $ 4.76 | -12% | ☆ *Opportunity ?* |
| B | 500 | 6.15 | 12.86 | +109 | ✔ |
| C | 53 | 7.30 | 77.64 | +964 | ✔ *Consider Divestment ?* |
| D | 2,079 | 8.88 | 19.76 | +123 | ✔ |
| E | 5,670 | 7.58 | 15.17 | +100 | ✔ |
| F | 11,196 | 5.34 | 5.26 | -1 | ☆ *Opportunity ?* |
| G | 423 | 5.92 | 4.39 | -26 | ☆ |

**Source:** CAM-I case study (Robin Cooper) — product costing for Schrader-Bellows pneumatic valve manufacturing before and after ABC.